National Aeronautics and Space Administration
Goddard Space Flight Center

Inside Wallops

Wallops Flight Facility, Wallops Island, Virginia | Volume XX-01 | Number: 17 | May 29, 2001

Students Set to Send Experiments into Space

High school students from across the United States will see their year of hard work pay off in June when they participate in the final steps for preparing their experiments for flight on the space shuttle and on a suborbital sounding rocket.

Eight student teams and their teacher advisors will journey to the NASA Goddard Space Flight Center's Wallops Flight Facility, after having their experiments chosen for space flight through the NASA Student Involvement Program (NSIP) flight opportunities competition.

"The purpose of the competition is to provide high school students an opportunity to take what they have learned in the classroom and apply it to the real world environment," said Lynn Marra, NSIP Officer at NASA Headquarters. "We hope that the students involved in the flights see it as a positive experience and pursue careers in science and engineering."

PAO Digital Photo
Larry Lockhart, PRC, prepares the NSIP Sub-SEM payload for testing on the spin/balance machine.

Lynne Zielenski, teacher/advisor for student teams from Glenbrook North High School, Northbrook, Ill., said, "The NSIP's value in education is that it allows students to do real rocket science and engineering. It is not theory or something out of the book. It is what real scientists do... the successes and the failures. It makes students think, problem-solve, articulate, design, build and learn a hundred other skills that today's businesses are looking for in its future work-force. It truly provides an opportunity for students to learn that with perseverance, The Sky Is Not The Limit!"

In addition to Glenbrook, other schools participating include Lafayette High School, Brooklyn, N.Y.; The Northwest School, Seattle, Wash.; Laramie Senior High School, Laramie, Wy.; Aguora High School, Aguora, Cal.; and DuVal High School, Lanham. Md.

Four of the student teams will converge on Wallops during the first week of June to participate in the final activities to prepare their experiments for the sounding rocket flight.

The experiments will investigate materials for future space flight vehicles, study the efficiency of electric motors during rocket flight, measure atmospheric constituents, and gather data on the sounding rocket flight environment for a musical composition.

Shortly after sunrise on June 6, the students hope to see their experiments fly aboard a single-stage NASA Orion sounding rocket to an altitude of more than 28 miles.

"Sounding rockets are an excellent education tool," said Bobby Flowers, chief of the Sounding Rockets Program Office. "Under NSIP, high school students are able to design and build at low cost an experiment for sounding rocket flight in one school year. In addition, after the launch they get almost immediate feedback on the success of their experiment. It's very gratifying to see the students' excitement."

During the second week of June the other four teams will arrive to integrate their experiments in a Space Experiment Module (SEM). The students will work with Wallops personnel in the Space Shuttle Small Payloads Office to test their experiments before being integrated with the carrier for flight.

"The students will be exposed to the process and many tests, including vibration, that we conduct to prepare an experiment for flight on the space shuttle," according to Barbara Justis, NSIP/SEM project manager. "At the end of the week we want the students to leave here confident that their experiment will work."

The experiments will study brine shrimp, mechanical resonators, food cultivation in space and the effects of microgravity on laminar fluid flow and may be flown as early as SEM-13 on STS-111, currently scheduled for April 2002.

Various activities, including the launch of the sounding rocket, will be webcast at the following web site:
http://www.wff.nasa.gov/pages/video_schedule.html#launch

Wallops Shorts…….

Balloon Launches

A NASA scientific balloon was successfully launched on May 23 from Ft. Sumner, N.M. The 39.57 million cubic foot balloon carried Geospace Sciences, IR/Submillimeter and Gamma Ray/X-Ray Astrophysics experiments for NASA Marshall Space Flight Center and Harvard University. Dr. Jonathan Grindlay was the principal investigator. Total flight time was 20 hours, 25 minutes.

Launch conditions were nearly perfect for the launch of a NASA scientific balloon from Ft. Sumner, N.M. on May 26. The 4.0 million cubic foot balloon carried the balloon craft systems for the Ultra-Long Duration Balloon. The flight was to test these systems. The launch operation went smoothly, the payload was recovered in excellent condition and the balloon was recovered. Total flight time was 28 hours 27 minutes.

On the Road

Chuck Brodell, NASA Shuttle Small Payloads Projects Office, participated in a Career Fair at Prince Street Elementary School on May 25.

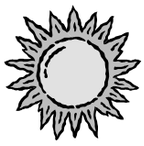
Canoe Challenge

Larry Bliven, Observational Science Branch, took part in the 13th annual Pocomoke River Canoe Challenge held May 20. Blivens finished second in the Senior Men's Long Kayak Class with a time of 1 hour 45 minutes. The 10-mile race was the second of the 2001 Delmarva Canoe & Kayak Circuit.

Wildlife News

The Virginia Department of Transportation (VDOT) has installed Swareflex reflectors along a small section of Route 175. They hope to determine how effective the reflectors are in reducing wildlife, vehicle collisions, especially from white-tailed deer. VDOT will compare the number of road-kills near the reflectors to areas where the reflectors are absent. Wallops employees are encouraged to report road-kills of any animal to Jason Wood, x1254, U.S. Department of Agriculture/Wildlife Services representative at Wallops. He will document the incident and report to VDOT for their study.

Wallops employees who notice sick or suspicious looking animals should contact Jason Wood, x1254. If it is an emergency and Wood is not available by telephone, contact the Control Tower Operators, x1688. They will contact Wood by radio.



Sun Safety

Sunburn, skin cancers, and other sun-related adverse health effects are largely preventable when sun protection is practiced early and consistently.

Despite the fact that sun tanning and burning increase skin cancer risks, most Americans do not protect themselves from the sun's damaging rays.

What are the health effects of overexposure to the sun?

UV radiation has both positive and negative effects. Positive effects of UV radiation include warmth, light photosynthesis in plants and vitamin D synthesis in the body. UV radiation also increases moods in people and kills pathogens.

Overexposure to UV radiation has adverse health effects.

Overexposure to UV radiation is the primary environmental risk factor in the development of UV-related adverse health effects, which include diseases of the eye, immune suppression and skin cancers.Children are most at risk for overexposure to UV radiation.

Sun exposure, especially sunburn during childhood, appears to increase the risk of melanoma, the most serious form of skin cancer. Just one or two blistering sunburns in childhood can double a person's risk of developing melanoma later in life.

For more on sun protection, go to: http://pao.gsfc.nasa.gov/gsfc/GNEWS/051801/051801.htm#Safety

Lanier to Provide Copier Services

Lanier Worldwide, Inc., Silver Spring, Md., has been awarded a contract with a base period value of $17,258,297 to provide NASA with digital copier services.

Under terms of the contract, Lanier will provide all NASA centers, their facilities and tenants with digital copier services, supplies, maintenance and training.

All of the current analog copiers will be removed and replaced with digital copiers. The new machines will have the ability to be networked so users can print, scan and fax, or any combination thereof.

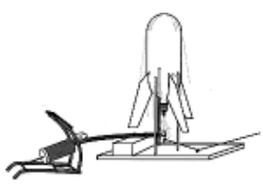
In addition to NASA Headquarters and the nine NASA field centers, Lanier will provide copier services to the Jet Propulsion Laboratory, Pasadena, Calif., the Goddard Institute for Space Studies, New York, NY, Wallops Flight Facility, Wallops Island, Va., Patrick Air Force Base, Melbourne, Fla., Cape Canaveral Air Force Station, Melbourne, Fla., and the White Sands Test Facility, Las Cruces, NM.

NASA Visitor Center Events in June

June 2 and 16 — "Model Rocket Launch"
A model rocket launch will be held at 1 p.m. Models of various rockets will be launched. Model rocketeers are invited to bring their own rockets and launch them. The launch will be canceled if it is raining or winds exceed 18 mph.

June 3 – "Biking Tour of the Main Base"
Participants must wear helmets and sign-up at the Visitor Center. The tour starts at 3 p.m., is 3 miles and takes approximately 1 hour. The tour will be cancelled if it is raining.

June 22 - "Launch Bottle Rockets"
Children of all ages can learn how to make and fly a Bottle Rocket between 10 a.m. and noon. Bring a 2-liter plastic soda bottle, all other materials are provided by the Visitor Center. The program will be cancelled if it is raining.



"Puppets in Space"
"Puppets in Space", a 10-minute puppet show is presented at 11 a.m. on Saturdays and Sundays. Puppet astronauts and Sam the monkey will explore space flight, including the spacesuit. An eight-minute version of the film "Astrosmiles" follows the puppet show. Children will get a paper Space Shuttle glider kit.

Sundays: "Humans in Space"
"Humans in space" is the subject of a 1 p.m. program for children of all ages. The 30-minute program looks at living and working in space, including a review of the astronauts' culinary delights and their wardrobe.

Daily: "Space Ace"
Children aged 5-10 years old can earn a "Space Ace" certificate and a lithograph during their Visitor Center experience by completing an activity sheet.

The Visitor Center, part of the Robert L. Krieger Education Complex, is open from 10 a.m. to 4 p.m. Thursday through Monday. It is closed on Tuesday and Wednesday. For further information, please call (757) 824-2298.

Upcoming Training

Explosive Safety Management and Engineering
WFF - Building E-2
June 25-29
8 a.m. to 4 p.m.

This course is offered at no cost to all NASA and contractor employees. Employees need to fill out the course registration form which requires their supervisor's signature. Additional information and course registration form can be found at:
http://www.wff.nasa.gov/~code803/pdf/explosafe01.pdf

Blood Pressure Readings

No appointment necessary

Where: WFF Health Unit
Bldg. F-160
For: Civil Service and Contract Employees
When: Monday - Friday
Time: 8:30 a.m. - 4 p.m.

TSP Funds Fluctuate Over Longer Periods

Over the 12 months ending in April, one of the worst stretches for the C fund since its creation in 1988, the C fund was down 12.95 percent, while the S fund's index dropped 18.99 percent and the I fund's index was down 16.3 percent.

The new indexes did worse than the C fund in four of the last five calendar years, the exception being 1999.

TSP Open Season runs May 15 to July 31, 2001.

Virginia Space Flight Academy Summer 2001

Slots are still available in the Virginia Space Flight Academy Summer 2001. Sessions are June 24-29, July 22-27, July 8-13, August 5-10 and August 12-17. For more information call Bob Marshall, (757) 824-3800.

Inside Wallops is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees.

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Printing Printing Management Office

http://www.wff.nasa.gov